ABSTRACT OF THE DISCLOSURE

The invention concerns an electrostatic maintaining device particularly designed for maintaining wafers made of conductor or semiconductor material such as silicon while they are being subjected to micromachining processes or any other type of treatment such as plasma treatment in a vacuum chamber for instance. The device consists of an electrically insulating surface beneath which are arranged at least two electrodes. The electrodes are powered by a direct current whereof the polarities are periodically inverted so as to release the accumulated static charges.